

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
2 December 2004 (02.12.2004)

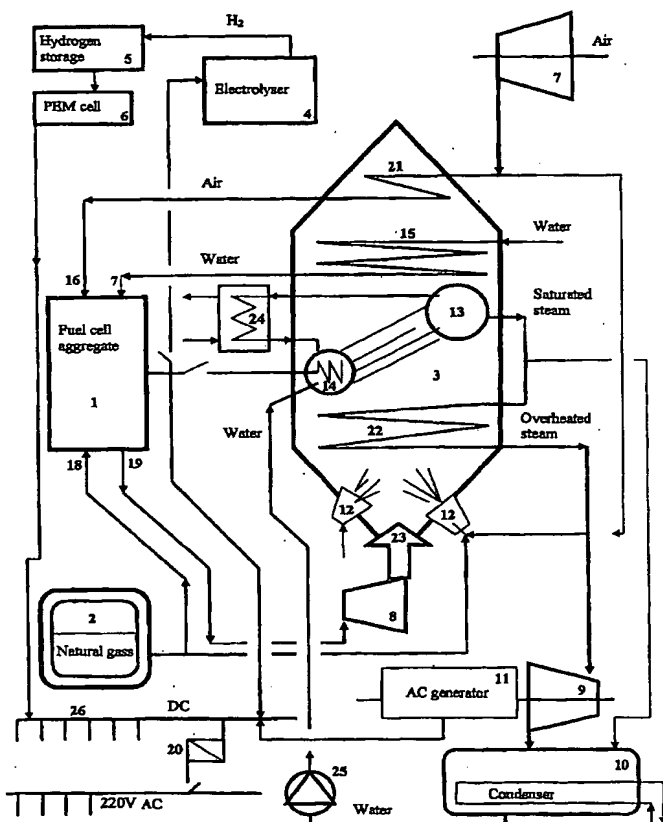
PCT

(10) International Publication Number  
**WO 2004/105170 A1**

- (51) International Patent Classification: **H01M 8/04** (74) Agent: ACTIO LASSEN AS; P.O. Box 1880 Nordnes, N-5817 Bergen (NO).
- (21) International Application Number: PCT/NO2004/000105 (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 13 April 2004 (13.04.2004)
- (25) Filing Language: Norwegian
- (26) Publication Language: English
- (30) Priority Data: 2003 1768 15 April 2003 (15.04.2003) NO
- (71) Applicant (for all designated States except US): EI-DESVIK AS [NO/NO]; N-5443 Bømlo (NO).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): SANDAKER, Kjell [NO/NO]; Hanaleite, N-5555 Førde i Hordaland (NO).
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK,

[Continued on next page]

(54) Title: BUFFER/CONVERTER/DUMPING SYSTEM BETWEEN FUEL CELLS AND PROCESS



(57) Abstract: The present invention comprises a system for use of fuel cells in stationary/mobile devices with a stable/unstable load profile, having: a fuel cell; a buffer for storage of surplus energy arranged to function as a regulating system between the fuel cell and energy consumption unit; a dumping device for dumping of energy when the buffer is full or according to need; an energy generator/converter for transforming energy when required to another form of energy, at larger energy demand than the fuel cell can meet, or for transforming of energy which is not used and which shall be stored in another form, or for transforming of energy which is stored in the buffer which shall be dumped in another form; and a procedure for use thereof.



TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**Published:**

— *with international search report*